SONY

3-757-957-21 (1)

Compact Disc Changer System

COMPACT disc DIGITAL AUDIO

Operating Instructions

Before operating the unit, please read this manual throughly and retain it for future reference.

Owner's Record

The model and serial numbers are located at the rear of the CD changer. Record the serial number in the space provided below. Refer to these numbers whenever you call upon your Sony dealer ragarding this product.

Model No. CDX-45RF Serial No. _____

Features

The CDX-45RF is a compact disc changer system comprised of the remote commander, the hideaway (modulator) unit and the CD changer. The hideaway unit modulates the audio signal from the CD changer into the RF (Radio Frequency) signal at 88.3 MHz, 88.7 MHz, 89.7 MHz or 89.9 MHz so that it can be received by the existing FM tuner of your car audio. Therefore you will be able to enjoy CD play with your car audio even if it has no input terminals for a compact disc player.

- Compact and space saving CD changer for vertical, horizontal or suspended installation in your car.
- Supplied remote commander enables you to control the CD changer installed in the trunk room of your car.
- **Repeat play function** for playing a track or a disc repeatedly.
- **Shuffle play function** for playing tracks of one disc or of all discs in random order.

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Precautions

- This system cannot be used with a car audio without the facility to receive FM.
- Before operating the unit for the first time or after replacing the car battery, press the reset button on the hideaway unit with a ball-point pen etc., and then start operating the system.
- If your car was parked in direct sunlight resulting in a considerable rise in temperature inside the car, allow the system to cool off before operating it.
- If no power is being supplied to the system, check the connections first. If everything is in order, check the fuse.
- Avoid installing the system in places:
  — subject to temperatures exceeding 55°C.
  — subject to direct sunlight.
  — near heat sources (such as heaters).
  — exposed to rain or moisture.
  — exposed to excessive dust or dirt.
  — subject to excessive vibration.
- As the laser beam used in this compact disc changer is harmful to the eyes, do not attempt to disassemble the cabinet. Refer servicing to qualified personnel only.

CAUTION

The use of optical instruments with this product will increase eye hazard.

The shielded interface cable recommended in this manual must be used with this equipment in order to comply with the limits for a digital device pursuant to Subpart B of Part 15 of FCC Rules.

INFORMATION

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, mays cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

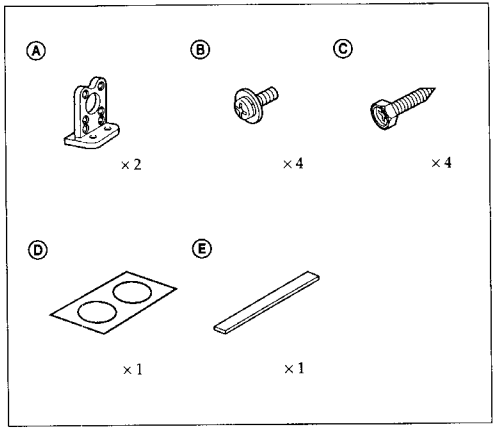
— Reorient or relocate the receiving antenna.
— Increase the separation between the equipment and receiver.
— Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
— Consult the dealer or an experienced radio/TV technician for help.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

Installation

Supplied Mounting Hardware

The letters in the list are keyed to those in the instructions.



CD Changer

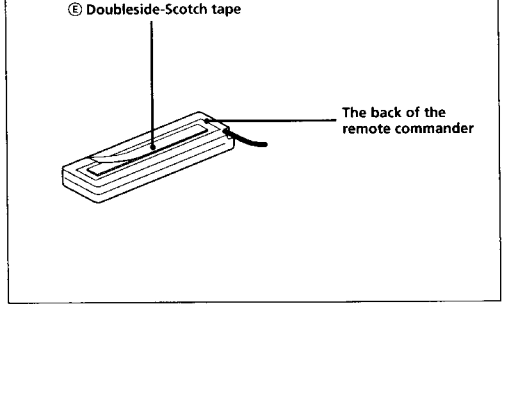
- Choose the mounting location carefully, observing the following:
  - — The fuel tank should not be damaged by the tapping screws.
  - — There should be no wire harnesses or pipelines under the place where you are going to install the unit.
  - — The spare tire, tools or other equipment in or under the trunk should not be interfered with or damaged by the screws or the unit itself.
- Be sure to use only the supplied mounting hardware for a safe and secure installation.

Remote Commander

- Avoid mounting them in the following locations where they may:
  - — hinder normal driving conditions of the driver.
  - — jeopardize the passengers.
  - — be subjected to the hot air from the heater.
  - — be subjected to direct sunlight.
- After installing the system, be sure to check that the whole system can be operated by the remote commander.

Installing the Remote Commander

Use the supplied doubleside-Scotch tape Ⓔ and mount the remote commander to a suitable location where it will not interfere with your driving.

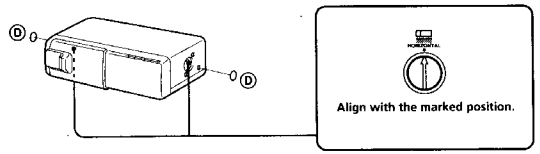


How to install the CD changer

When you install the CD changer, be careful not to damage wiring or equipment on the other side.

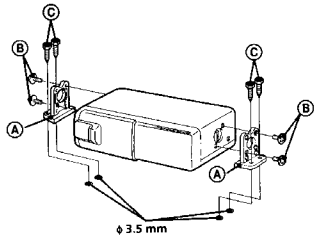
Horizontal installation

1



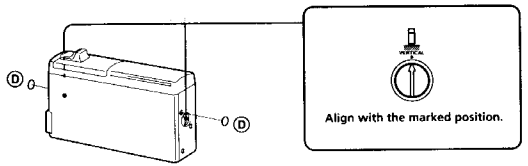
Before installing the unit in your car, cover the holes which are not to be used.

2



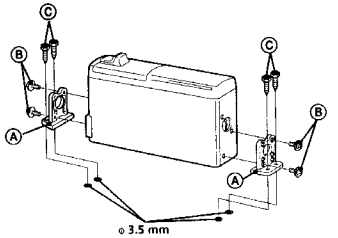
Vertical installation

1



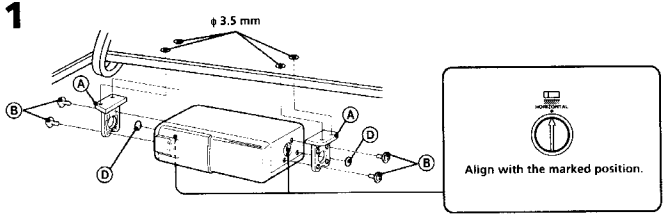
Before installing the unit in your car, cover the holes which are not to be used.

2



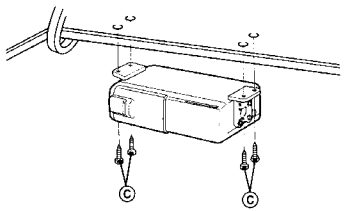
Suspended installation

1



Before installing the unit in your car, cover the holes which are not to be used.

2



When the unit is to be installed under the rear tray etc. or in the trunk room, observe the following.

- Choose the mounting location carefully so that the unit can be installed horizontally.
- Make sure that the unit does not hinder the movement of the torsion bar spring etc. of the trunk lid.

Connections

Caution

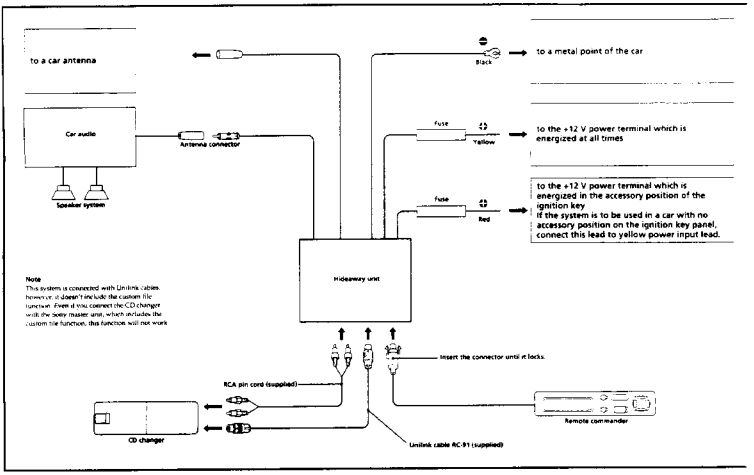
- This system is designed for negative ground 12 V DC operation only.
- Before making connections, disconnect the ground terminal of the car battery to avoid short circuits.
- Connect the yellow and red power input leads only after all other leads have been connected.
- Be sure to connect the red power input lead to the positive 12 V power terminal which is energized when the ignition key is in the accessory position.
- **Run all ground wires to a common ground point.**
- **Press the reset button on the hideaway unit after completing the connections.**

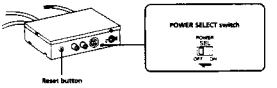
Fuse Replacement

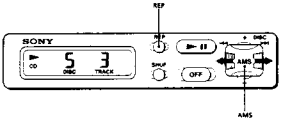
If the fuse blows, check the power connection and replace the fuse. If the fuse blows again after replacement, there may be an internal malfunction.

Warning

Use the specified amperage fuse. Use of a higher amperage fuse may cause serious damage.


to a car antenna
Car audio
Antenna connector
Speaker system
Black
to a metal point of the car
Fuse
Yellow
to the +12 V power terminal which is energized at all times
Fuse
Red
to the +12 V power terminal which is energized in the accessory position of the ignition key
If the system is to be used in a car with no accessory position on the ignition key panel, connect this lead to yellow power input lead.
Hideaway unit
Note
This system is connected with Unilink cables, however, it doesn't include the custom file function. Even if you connect the CD changer with the sony master unit, which includes the custom file function, this function will not work.
Insert the connector until it locks.
RCA pin cord (supplied)
CD changer
Remote commander
Unilink cable RC-91 (supplied)





Installing the System in a Car without Accessory Position

POWER SELECT switch setting

When this system is to be installed in a car with no ACC (accessory) position on the ignition panel, set the POWER SELECT switch on the front side of the hideaway unit to the OFF position. After the switch has been set, the power supply to this system will be turned off whenever the OFF button on the remote commander is pressed while the system is operating. However, when you turn off the ignition of your car, be sure to turn off the power supply by pressing of the above mentioned button in order to conserve the car battery. (If you use this system with the POWER SELECT switch set to the ON position in a car with no accessory position, the OFF button will not turn off the power supply to the whole system.)

When you change the setting of the POWER SELECT switch, be sure to press the reset button on the hideaway unit with a ball-point pen etc.

Changing the Transmitting Frequency

You can select the frequency of the modulated RF signal being transmitted from the hideaway unit according to the level of interference noise.

1. Press the REP button for approx. 2 seconds.
The system will enter the frequency selecting mode. The initial setting is 88.3 MHz.

2. Press either the left or right side of the AMS switch to select the frequency.
Each time you press, the AMS switch will change the frequency as follows:

⏮ 88.3 MHz → 89.9 MHz → 89.7 MHz → 88.7 MHz → 88.3 MHz
⏭ 88.3 MHz → 88.7 MHz → 89.7 MHz → 89.9 MHz → 88.3 MHz

3. Press the REP button again for approx. 2 seconds.

Note

Be sure to set the frequency of your FM tuner to that of the power selected frequency.

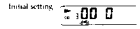
Changing the Output Level

You can select the output level from the CD changer. Normally, the system is used in the initial output level. Change the level if necessary.

1. Press the REP button for approx. 2 seconds.
The system will enter the frequency selecting mode.

2. Press the REP button momentarily.
The system will enter the output level selecting mode.

Initial setting



3. Press either the left or right side of the AMS switch to select the level.

To decrease the output level

⏮ →

To increase the output level

⏭ →

4. Press the REP button once again for approx. 2 seconds.

Notes on Compact Discs

This way

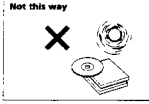
A dirty or defective disc may cause sound dropouts in playing. To enjoy optimum sound, handle the disc as follows.

Handle the disc by its edge, and to keep the disc clean, do not touch the surface.

Not this way

Do not stick paper or tape on the labeled surface.

Not this way



Do not expose the discs to direct sunlight or heat sources such as hot air-ducts, or leave them in a car parked in direct sunlight where there can be a considerable rise in the temperature inside the car.

This way

Before playing, clean the discs with an optional cleaning cloth. Wipe each disc from the center of the disc outward.

Do not use solvents such as benzine, thinner, commercially available cleaners or antistatic spray intended for analog discs.

Moisture condensation

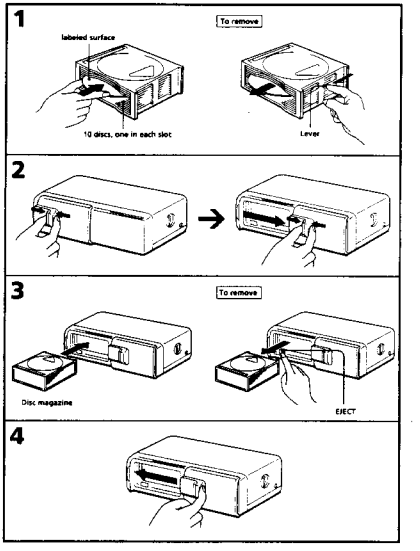
On a rainy day or in a very damp area, moisture may condense on the lenses inside the CD changer. Should this occur, the unit will not operate properly. In this case, **remove the disc and wait for about an hour until the moisture has evaporated.**

If you have any questions or problems concerning your system that are not covered in this manual, please consult your nearest Sony dealer.

Notes on the Disc Magazine

- Do not leave the disc magazine in locations with high-temperatures and high-humidity, such as on a dashboard or by the rear window where the disc magazine will be subjected to direct sunlight.
- Do not insert more than one disc at a time into a slot, otherwise the CD changer and the discs may be damaged.
- Do not drop the disc magazine or subject it to a violent shock.

Preparations



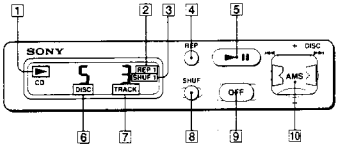
If the disc magazine does not lock properly
Take out the disc magazine, and after pressing the EJECT button, reinsert it.

Use the unit with the door closed
Otherwise, foreign matter may enter the unit, and contaminate the lenses inside the CD changer.

Note
To play a 3-inch CD, use the Sony CSA-8 adaptor (not supplied). Playing a 3-inch CD without the adaptor may damage the unit.

Location and Function of Controls

Remote Commander



1 ▶ **(play/pause) indication**
Lights during CD playback and blinks when the pause button is pressed.

2 **REP (repeat play) indication**

3 **SHUF (shuffle play) indication**

4 **REP (repeat play/control mode set) button**

5 **▶II (play/pause) button**
If pressed during playback, the CD will pause. If pressed again, playback will continue.

6 **DISC (disc number) indication**
The indicated disc number matches the disc number on the disc magazine.

7 **TRACK (track number) indication**

8 **SHUF (shuffle play) button**

9 **OFF button**

10 **AMS*/DISC (disc select/manual search) switch**
Depending on which side of the switch you press, you can select from following functions.

AMS function
To search the beginning of a track, press
▶▶| to locate the beginning of the next track.
|◀◀ to locate the beginning of the track currently played.
If you press the switch repeatedly, the beginnings of all following or previous tracks will be located until the end of the disc is reached.

Disc select function
To select a desired disc, press **momentarily**
+ to select the next disc.
− to select the previous disc.

Manual search function
To quickly search a desired point of a track, press **and hold down**
+ to fast-forward.
− to fast-reverse.
The elapsed playing time of the track will be shown on the display window during manual search.

* Automatic Music Sensor

Listening to the CD Play

Starting CD Play

1 **Turn on the FM tuner of your car audio and select the frequency from 88.3 MHz, 88.7 MHz, 89.7 MHz or 89.9 MHz whichever has been selected by the procedure described in "Changing the Transmitting Frequency". See the operation manual of your car audio about the FM tuning as well.**

If the system is in the normal playing mode, after the end of a disc, the disc with the next number shown on the display window of the remote commander will automatically be played.

2 **Press the ▶II button on the remote commander. The CD play will start.**

▶ II

Adjust the volume with the volume control on the car audio.

Stopping CD Play

Press the OFF button on the remote commander.
To resume CD play, press the ▶II button on the remote commander.

Notes
- When CD play is stopped, you may hear some noise from the speakers. To prevent this from happening, turn the volume down before stopping CD play.
- If you turn off the ignition of your car without stopping CD play, it will automatically resume CD play from where it was stopped the next time you turn on the ignition.

Listening to the Radio/Tape Playback

Press the OFF button on the remote commander to stop CD play before tuning in a radio station or starting tape playback.

Be sure to stop CD play before you start listening to the radio. Otherwise there may be some interference in the radio reception.

Note
When this system is used with your car audio, the reception of the tuner may become slightly worse than usual.

Playing in Other Modes

Playing a Disc Repeatedly
— Repeat Play Functions

Playing the currently selected track repeatedly — Track repeat

Press the REP button to get the "REP 1" indication during CD play.

When the track is over, CD play will be repeated from the beginning of that track.

Playing the currently selected disc repeatedly — Disc repeat

Press the REP button to get the "REP 2" indication during CD play.

When the last track of the currently selected disc is over, CD play will be repeated from the beginning of that disc.

The function of the REP button changes cyclically as follows:

REP 1 (Track repeat)
↓
REP 2 (Disc repeat)
↓
Cancel (Normal CD play)

Playing the Discs Randomly
— Shuffle Play Functions

Playing the tracks on the currently selected disc randomly — Disc shuffle play

Press the SHUF button to get the "SHUF 1" indication during CD play.

When all the tracks on a disc have been played, the shuffle play will move on to the next disc.

Playing every track on every disc in the currently selected CD changer randomly — CD changer shuffle play

Press the SHUF button to get the "SHUF 2" indication during CD play.

The function of the SHUF button changes cyclically as follows:

SHUF 1 (Disc shuffle)
↓
SHUF 2 (CD changer shuffle)
↓
Cancel (Normal CD play)

Troubleshooting Guide

The following check will assist in the correction of most problems which you may encounter with your unit. Before going through the check list below, refer back to the connection and operating procedures.

Problem	Cause/Solution
Do not function.	• The built-in micro computer has malfunctioned. **→ Press the reset button on the hideaway unit.** • The connecting cords are not connected properly.
The sound skips.	• The CD changer is installed in an unstable location. **→ Re-install it in a stable location.** • Dirty or defective disc(s) **→ Clean or replace it/them.**
The disc magazine is not locked in the CD changer.	Take out the disc magazine, press the EJECT button, and reinset the disc magazine until it is locked securely.

Error displays

The following indications will blink for about five seconds.

Display	Cause	Solution
E-01	The disc magazine is not inserted in the CD changer.	Insert the disc magazine with discs into the CD changer.
E-02	No disc is inserted in the disc magazine.	Take out the disc magazine and insert the discs.
E-04	The disc is dirty.	Clean the disc.
	The disc is inserted upside down.	Insert the disc correctly.
E-99	The CD changer cannot be operated because of some problem.	Press the reset button of the hideaway unit.

If the above mentioned solutions do not help to improve the situation, consult your nearest Sony dealer.

Specifications

CD changer

System	Compact disc digital audio system
Laser Diode Properties	
Material	GaAlAs
Wavelength	780 nm
Emission Duration	Continuous
Laser out-put Power	Less than 44 μW*
	* This output is the value measured at a distance of 200 mm from the objective lens surface on the Optical Pick-up Block.
Frequency response	10 – 20,000 Hz
Wow and flutter	Less than measurable limit
Signal-to-noise ratio	More than 90 dB
Output terminals	Unilink control output terminal (8 pin) Analog audio output terminal (RCA pin)
Current drain	900 mA (at playback) 900 mA (at disc loading/ejecting)
Operational temperature	+10°C to +55°C (14°F – 131°F)
Dimensions	Approx. 305 × 90 × 174 mm (12 1/8 × 3 5/8 × 6 7/8 in.) (w/h/d)
Mass	Approx. 2.5 kg (5 lb. 8 oz.)

Hideaway unit/Remote commander

Frequency	88.3 MHz/ 88.7 MHz/ 89.7 MHz/ 89.9 MHz (switchable)
Dimensions	Hideaway unit: Approx. 126 × 90 × 81 mm (5 × 3 5/8 × 3 1/4 in.) (w/h/d) Remote commander: Approx. 148 × 30 × 15 mm (5 7/8 × 1 1/4 × 5/8 in.) (w/h/d)
Mass	Hideaway unit: Approx. 400 g (14 oz.) Remote commander: Approx. 120 g (4 oz.)

Supplied accessories

Disc magazine (1)
Unilink cable (1)
RCA pin cord (1)
Mounting hardware (1 set)

Optional accessories

CD cleaning kit CDM-21BK
CD single adaptor CSA-8
Disc magazine XA-10B

Design and specifications subject to change without notice